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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,626	07/21/2003	Shuji Yamakawa	5258-000017	5176
27572	7590	02/17/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			FIGUEROA, FELIX O	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,626

Applicant(s)

YAMAKAWA ET AL.

Examiner

Felix O. Figueroa

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 07/21/03. 6) ☐ Other: .

DETAILED ACTION

Drawings

The drawings are objected to because they have elements shown in cross section which are not properly crosshatched. Insulating members shown in cross section should be properly crosshatched (see Figure 2). It is brought to applicant's attention that the conventional crosshatch for insulating members shown in cross section consist of lines of two different thicknesses alternatively disposed.



Correction is required.

Claim Objections

Claims 1 and 2 are objected to because of the following informalities:

In claim 1 line 5, "said each bus bar" should be -- each of said bus bars--; and "said" (second occurrence) should be deleted. In line 7, "each" should be --a--.

In claim 2 line 4, "said each bus bar" should be -- each of said bus bars--; and "said" (second occurrence) should be deleted. In line 6, "each" should be --a--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6,402,530) in view of Hatagishi et al. (US 5,954,533).

Saito discloses a connection structure between bus bars (16) and relay terminals (30a) in an electrical connection box (10) to be mounted on an automobile, the connection structure comprising: each bus bar formed into a desired circuit configuration; an end (16d) of each of the bus bars being bent so that each end is connected to a respective one of the relay terminals; each bus bar being welded to each respective relay terminal. However, Saito does not disclose any specific material for the bus bars. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an aluminum-based metal as the preferred material for the bus bars, in order to provide a lightweight bus bar, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

Saito discloses substantially the claimed invention except for the insulation resin around the connection parts. Hatagishi teaches the use of an insulating resin (30) surrounding joint connection parts to strengthen and protect the connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the welded connection parts of Saito embedded in a molded resin insulation, as taught by Hatagishi, to strengthen and protect the connection.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6,402,530) in view of LaCroix (US 6,261,117).

Saito discloses a connection structure between bus bars (16) and relay terminals (30a) in an electrical connection box (10) to be mounted on an automobile, the connection structure comprising: each bus bars formed into a desired circuit configuration; an end (16d) of each of the bus bar being bent so that each end is connected to a respective one of the relay terminals; each bus bar being welded to each respective relay terminal. However, Saito does not disclose any specific material for the bus bars. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an aluminum-based metal as the preferred material for the bus bars, in order to provide a lightweight bus bar, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

Saito discloses substantially the claimed invention except for the grease around the connection parts. LaCroix teaches the use of grease surrounding joint connection parts to protect the connection against dust and moisture. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the welded connection parts of Saito surrounded by grease, as taught by LaCroix, to protect the connection against dust and moisture.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shimojyo (US 5,993,256) discloses a connection embedded in insulating resin.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (703) 308-0097. The examiner can normally be reached on Mon.-Fri., 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (703) 308-2319. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

ffr

Felix O. Figueroa


RENEE LUEBKE
PRIMARY EXAMINER